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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/608,645 | 06/30/2000 | Brian M. Leitner | 219.38119X00 | 9499 |
| 20457 | 7590 | 05/11/2005 | EXAMINER | |
| ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873 | | | STRANGE, AARON N | |
| | | ART UNIT | | PAPER NUMBER |
| | | 2153 | | |

DATE MAILED: 05/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|----------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/608,645 | LEITNER ET AL. | |
| | Examiner | Art Unit | |
| | Aaron Strange | 2153 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 22 February 2005.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-21 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date. _____.
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ 5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 2/22/2005 have been fully considered but they are not persuasive.

2. With regard to claims 1-18 and Applicant's assertion that Muller fails to teach the claimed limitation reciting, "wherein the valid bit is indicative of whether at least one response is expected", The Examiner respectfully disagrees. In response, the Examiner points to the final Office action of 8/20/2004, which already responded to the same argument. To further clarify, a flow database manager received control information from a header parser. The header parser parses the header portion of the data packet to retrieve specific information including communications protocol information. A communications protocol is set-up between the packet source and destination. Muller recites in column 14 lines 29-33: "Each protocol header contains information to be used by the receiving computer system as the packet is received and processed through the protocol stack. Ultimately, each protocol header is removed and data portion is retrieved." Thus, in establishing a communications protocol it is necessary to exchange expected data (handshaking, acknowledgement, etc) in accordance to the protocol defined in the protocol header. A message protocol flow is established according to the protocol specified in the protocol header (see col. 14 lines 18-67 and col. 15 lines 63-col. 16 line 10).

3. With regard to claims 19-21, and Applicant's assertion that "Dobecki teaches one message engine, whereas Applicant claims a receive queue engine partitioned from the send queue engine (that is, two engines).", the Examiner respectfully disagrees. The packetizer and de-packetizer taught by Dobecki are separate engines partitioned from each other. The current claims certainly do not preclude the engines from both being part of a larger device, but merely require that they be partitioned from each other. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Muller et al (US 6,453,360).

6. In referring to claim 1 and 10, Muller shows a system for high performance network interface for receiving and transferring packets in conformance with a number of processing function to increase efficiently of packet handling. Muller shows:

- o Request packet transmitted by the network interface (col. 53 lines 40-44, col. 54 lines 32-43).
- o Writing the packet sequence number (flow number) of the request packet to a location in a circular send queue (col. 56 lines 51-65) pointed to by the write pointer (fig. 9 916) and setting a valid bit (flow validity indicator and operational code, fig. 6b, 622-624, col. 44 lines 17-48), wherein the valid bit is indicative of whether at least one response is expected.
- o Incrementing the write pointer if the packet is read request (col. 55 lines 39-41, col. 41 lines 51-63), or clearing a read indicator at the location in the queue if the packet is not a read request packet (col. 42 lines 1-15).
- o For every response packet received by the network interface (col. 41 lines 22-29).
- o Checking the packet sequence number (flow sequence number 522) of the response packet against the packet sequence number stored in at a location in the circular send queue point to by the read pointer of the circular send queue (col. 41 lines 56- col. 42 line 23).

7. In referring to claim 2 and 11, the packet is dropped if the valid bit at the location in the queue is not set (col. 106 lines 5-35).

In referring to claim 3 and 12, Muller shows a response packet is accepted if the valid bit (flow validity indicator 520) at the location in the queue pointed to is set and the packet sequence number (flow sequence number 522) of the response packet is equal to or less than the packet sequence number written at the location and greater than the last acknowledged packet sequence number (col. 56 lines 42-55).

8. In referring to claim 4 and 13, Muller shows that if response packet is read response packet, it is accepted if the sequence number is equal to the packet sequence number written in the queue and the read indicator (SYN bit) is set (col. 42 lines 16-23).

9. In referring to claim 5 and 14, if the response packet is accepted, the valid bit (flow validity indicator, col. 44 lines 30-34) at the location in a queue is cleared and if the packet is a read response packet, the read pointer (506) is incremented (col. 43 lines 16-55).

10. In referring to claim 6 and 15, Muller shows for every request packet received,

- o If the request packet is a read request packet, then setting the read bit at the location in the queue pointed to by the write pointer (502) and incrementing the write pointer (col. 43 lines 1-55).
- o If the request packet is not a read request packet, then clearing the read bit at the location in the circular receive queue pointed to by the write pointer (col. 42 lines 24-35)

- Reading the packet sequence number (522) and the valid bit at a location pointed to by the read pointer of the queue (fig. 5 col. 41 lines 45-55).

11. In referring to claim 7 and 16, Muller shows a response packet is transmitted if the valid bit at the location pointed to is set (col. 43 lines 40-55).

12. In referring to claim 8 and 17, Muller shows a read response packet is transmitted if the read bit at the location is set (col. 41 lines 56-62).

13. In referring to claim 9 and 18, Muller shows the valid bit (520) at the location is cleared and if the response is a read response, the read pointer is incremented after the response packet is transmitted (col. 43 lines 53-55).

14. Claims 19-21 rejected under 35 U.S.C. 102(e) as being anticipated by Dobecki (US 6,611,879).

15. In referring to claim 19, Dobecki shows a network interface (fig. 7) comprising:
A transmitter (418)
A receiver (424)
A send queue context memory (312S, col. 17 lines 52-57).
A receive queue context memory (312R, col. 17 lines 52-58).

A send queue engine (ME 315: 428p) connected to the send queue (312S) context memory and the transmitter and the receiver (col. 16 lines 40- col. 17 line 2).

A received queue engine (ME 315: 428d) connected to the received queue (312R) context memory and the transmitter and the receiver (col. 16 lines 40- col. 17 line 2).

16. In referring to claim 20 and 21, the network interface further comprises of plurality of ports receiving data from a corresponding plurality of NGIO and further comprising a virtual interface architecture establishing communication with plurality of NGIO links (col. 9 lines 63- col. 10 line 5).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS
4/29/2005



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